ELSEVIER

Volume 278, Numbers 1–2, 15 May 1996

thin solid films

Contents

Synthesis and Characterization

Growth and characterization of liquid-phase epitaxial $Hg_{1-x}Cd_xTe$ films 1
B. Li, X.Q. Chen, J.H. Chu, J.Y. Cao, J.Q. Zhu, D.Y. Tang (Shanghai, People's Republic of China)

Preparation of Ta_2Al intermetallic compound films and their application as diffusion barriers to Cu penetration 6
A. Ohta, A. Noya, M. Takeyama, M. Taguchi, T. Sase, K. Sasaki (Kitami, Japan)

Depth profiling of thin ITO films by grazing incidence X-ray diffraction 12
D.G. Neerinck, T.J. Vink (Eindhoven, The Netherlands)

Fabrication of ZnTe–Au composite microcrystallites utilizing island growth during thin film deposition 18
Y. Takeda, T. Satoh, T. Motohiro, T. Hioki, S. Noda (Aichi-ken, Japan)

Infrared kinetic study of ultrathin SiC buffer layers grown on Si(100) by reactive chemical vapour deposition 22
G. Ferro, Y. Monteil, H. Vincent, F. Cauwet, J. Bouix, P. Durupt (Villeurbanne, France), J. Olivier, R. Bisaro (Orsay, France)

Instability of Si–F bonds in fluorinated silicon oxide (SiOF) films formed by various techniques 28
T. Homma (Kanagawa, Japan)

Formation of Ge nanocrystals in amorphous GeO_x and $SiGeO_x$ alloy films 32
M. Zacharias, J. Bläsing, M. Löhmann, J. Christen (Madgeburg, Germany)

Thin TiC_x films chemically vapour deposited onto cemented carbides from the $TiCl_4$–CCl_4–H_2 mixture 37
I.Yu. Konyashin (Moscow, Russia)

Room-temperature growth of Cu thin films by nozzle-type partially ionized beam deposition with various acceleration voltages 45
S.K. Koh, Y.S. Yoon, K.H. Kim, H.J. Jung (Seoul, South Korea), J.Y. Lee (Taejeon, South Korea)

Effect of normal load on microscale friction measurements 49
B. Bhushan, A.V. Kulkarni (Columbus, OH, USA)

Formation of titanium silicides by titanium deposition onto silicon with simultaneous self-ion bombardment 57
I.V. Gusev, V.I. Chapljuk, V.P. Belevsky (Kiev, Ukraine)

Effects of heavy plasma atoms on spin centers in reactively sputtered SiN films 61
I. Sugimoto, H. Kuwano, S. Nakano (Tokyo, Japan)

Preparation of TiN film on brass by CAPD as a decoration system 67
S. Wang, X. Bai, B. Wang, Y. Fan (Beijing, People's Republic of China)

Durability of dielectric protective layers against repetitious thermal stress in phase-change optical recording 74
M. Horie, T. Ohno (Yokohama, Japan)

Growth of $CuInSe_2$, $Cu(In,Ga)Se_2$ and $CuIn(Se,S)_2$ films on SnO_2 thin film substrates 82
G. Massé, K. Djessas, K. Guenoun (Perpignan, France), A. Smith (Limoges, France)

Ion beam assisted film growth by high dose implantation of carbon into a liquid medium 87
R.R. Manory, R. Sahagian, S.N. Bunker, A.J. Armini (Wakefield, MA, USA)

Metallurgical Protective and Hard Layers

Residual stresses in plasma sprayed partially stabilised zirconia TBCs: influence of the deposition temperature 96
P. Scardi, M. Leoni (Trento, Italy), L. Bertamini (Rome, Italy)

Electronics, Optics and Opto-electronics

Excitation-induced optical switching in transparent coatings 104
B.E. Sernelius (Linköping, Sweden)

Elsevier Science S.A.

Photoelectrical properties of double-layer organic solar cells using C_{60} and phthalocyanines 108
H. Yonehara, C. Pac (Chiba, Japan)

Growth of $Si_{1-x-y}Ge_xC_y$ multi-quantum wells: structural and optical properties 114
P. Boucaud, C. Guedj, F.H. Julien, E. Finkman (Orsay, France), S. Bodnar, J.L. Regolini (Meylan, France)

Electronic structure of plasma polymers of quinoline 118
X. Xie, P. Oelhafen (Basle, Switzerland)

Determination of optical constants and average thickness of thin films on thick substrates using angular distribution of intensity of reflected radiation 124
J. Jaglarz, M. Nowak (Katowice, Poland)

Electrical and photoelectrical properties of poly(phenyl azomethine furane) thin films devices 129
G.D. Sharma, S.G. Sandogaker, M.S. Roy (Jodhpur Raj., India)

Design of reflective tantala optical coatings using sol–gel chemistry with ethanoic acid catalyst and chelator 135
Y. Sun (Taiyuan, People's Republic of China), P.A. Sermon, M.S.W. Vong (Uxbridge, UK)

Magnetics and Magneto-optics

Magnetic properties of gadolinium silicide thin films produced by different fabrication processes 140
C. Pescher (Arcueil, France), J. Pierre, A. Ermolieff, C. Vannuffel (Grenoble, France)

Langmuir–Blodgett, Biological and Related Films

Magnetic properties of stearate films with 3d transition metal ions fabricated by the Langmuir–Blodgett method 144
Y. Ando, T. Hiroike, T. Miyashita, T. Miyazaki (Sendai, Japan)

Thin Film Devices, Sensors and Actuators

The influence of rapid thermal annealing and sulfur passivation on the electrical characteristics of anodically grown InSb MOS structures 150
G. Eftekhari (New Paltz, NY, USA)

Condensed Matter Film Behaviour

Rutherford backscattering spectrometry, particle induced X-ray emission and atomic force microscopy of InAs thin films grown on GaAs: a complementary study 155
T. Bouhacina, J.P. Aimé, A.S. Barrière (Talence, France), H. Guégan (Gradignan, France), N. Grandjean, J. Massies (Valbonne, France)

Author Index of Volume 278 167

Subject Index of Volume 278 168

The publisher encourages the submission of articles in electronic form thus saving time and avoiding rekeying errors. A leaflet describing our requirements is available from the publisher upon request.